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MACPHERSON KWOK CHEN & HEID LLP  
1762 TECHNOLOGY DRIVE, SUITE 226  
SAN JOSE, CA 95110

EXAMINER

MYINT, DENNIS Y

ART UNIT PAPER NUMBER

2162

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/661,387	SURESH, ASHOK	
	<b>Examiner</b>	<b>Art Unit</b>	
	Dennis Myint	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-65 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-65 have been examined.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Morgenstern (U.S. Patent Number 5970490).

As per claim 1, Morgenstern is directed to a method for managing information, the method comprising:

storing object data of more than one type in a common format (Morgenstern, Column 5 Line 37-48, i.e. "into a common intermediate representation");

storing a specific format for each type of object data (Morgenstern, Column 5 Line 37-48, i.e. "then into a specialized target specification");

storing a plurality of filters (Morgenstern, Column 4 Line 61-67, i.e. "specification", Column 6 Line 23-37, i.e. "self-description", and Column 7 Line 24-31, i.e. "HLDSS data structure specifications" ); and

converting the object data between the common general format stored in the object management unit (Morgenstern, Figure 1 "Information Bridge View Transformations" 1 and Column 5 Line 37-48 ) and the specific format for retrieval

Art Unit: 2162

(Column 5 Line 37-48, i.e. "then into a specialized target specification") utilizing a respective one of the filters stored in the filter management unit (Morgenstern, Figure 2 "Interoperability Assistant" and Column 7 Line 16 through Column 8 Line 57, i.e. "IA module"), wherein the object data has filter identifiers (Morgenstern, Column 7 Line 24-31, i.e. "HLDSS data structure specifications") and each filter identifier respectively specifies a corresponding one of the filters (Morgenstern, Column 7 Line 17-24 "The input to the IA consists of two high level data structure specifications (HLDSS) and a high level transformation rule specification (HLTRS)" ).

As per claim 2, Morgenstern is directed to an information management system comprising:

an object management unit configured to store object data of more than one type in a common format (Morgenstern, Figure 1 "Information Bridge View Transformations" 1 and Column 5 Line 37-48);

a format management unit configured to store a specific format for each type of object data (Morgenstern, Figure 1 "Information Bridge View Transformations" 1 and Column 5 Line 37-48);

a filter management unit configured to store a plurality of filters (Morgenstern, Figure 2 "Interoperability Assistant" and Column 7 Line 16 through Column 8 Line 57, i.e. "IA module"); and

a data management control unit configured to convert the object data between the common general format stored in the object management unit and the specific format for retrieval (Morgenstern, Figure 1 "Information Bridge View Transformations" 1

Art Unit: 2162

and Column 5 Line 37-48) utilizing a respective one of the filters stored in the filter managing unit, wherein the object data has filter identifiers and each filter identifier respectively specifies a corresponding one of the filters (Morgenstern, Morgenstern, Column 7 Line 24-31, i.e. "HLDSS data structure specifications" and Column 7 Line 17-24 "The input to the IA consists of two high level data structure specifications (HLDSS) and a high level transformation rule specification (HLTRS)" ).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 3-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgenstern in view of Chang et al. (U.S. Patent Number 6578046).

Referring to claim 3, Morgenstern as applied to claim 1 above does not explicitly disclose a search method, the method comprising organizing a plurality of data elements within the database such that the data is locatable without a separate index. However, Chang et al. teaches a system and method for federated searches of heterogeneous datastores using a federated datastore object, wherein the said system and method employs a common object model in an object-oriented environment (Chang et al., Column 5 Line 7-11) to perform multi-search (Chang et al., Column 4 Line 66

Art Unit: 2162

through Column 5 Line 3) with multiple capabilities (Chang Column 6 Line 24-42). The said system and method of Chang et al. could search without a separate index (Chang et al., Column 10 Line 26-58 i.e. by using "IDType", ItemId", and "Rank" ).

At the time the invention was made, it would have been obvious to a person of ordinary skill to combine the feature of using object-oriented model in searching heteronymous databases as taught by Change et al. with the system and method of Morgenstern as applied to claim 1 above so that the combined system and method would constitute a search method for using a database, the method comprising organizing a plurality of data elements within the database such that the data is locatable without a separate index. One would have been motivated to do so in order to "provide multi-searching and updating capabilities across a combination of heterogeneous datastores" (Change et al., Column 4 Line 44-46).

Referring to claim 4, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed. Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising performing either an absolute search or a probability search (Chang et al., Column 5 Line 24-43, i.e. "an exact match on the condition specified in the query predicate" and "approximate match with the given text search").

Referring to claim 5, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed. Morgenstern in view of Chang et al. teaches the method as recited in claim 3, wherein query keys do not have to be provided in any fixed sequence in order to get the same

Art Unit: 2162

results (Chang et al., Column 8 Line 34 through Column 10 Line 58). Note that, in the system and method of Chang et al., a query is "evaluated" by the functions of the datastore object and a queryable collection object is obtained, which does not take into account the sequence of query keys in the query. Irrespective of the sequence of query keys, the system and method of Chang et al. would produce the same results.

Referring to claim 6, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed. Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising storing an element of data in a linearized structure (Chang et al., Column 8 Line 5-23, i.e. "SequentialCollection 2, a collection which supports sorting and provides sequential access to its member, forward and backward." and Morgenstern, Column 11 Line 19-23, i.e. "The HLDSS provides a specification language using linear textual syntax consisting a sequence of lines of text.").

Referring to claim 7, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed. Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising linking a plurality of data elements within the database to one another (Morgenstern, Column 13 Line 63-67, i.e. "Optional linking variables can be utilized to interrelate several data objects and their attributes" and Chang et al. Column 5 Line 33-41, i.e. "The concept mapping enables a user to follow links and join tables as part of a query where the result of a first datastore links data in another" ).

Referring to claim 8, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed.

Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising automatically linking a plurality of explicitly related data elements within the database to one another (Chang et al. Column 5 Line 33-41, i.e. "The concept mapping enables a user to follow links and join tables as part of a query where the result of a first datastore links data in another").

Referring to claim 9, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed.

Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising manually linking a plurality of implicitly related data elements within the database to one another (Morgenstern, Column 13 Line 63-67, i.e. "*Optional* linking variables can be utilized to interrelate several data objects and their attributes").

Referring to claim 10, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed.

Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising:

adding at least one data element to the database (Chang et al., Column 11 Line 5-19, i.e. "public void addElement (Object element);"); and

wherein no predefined field for the data element exists at the time that the data element is added. Note that "Collection.java" of Chang et al. (Column 11 Line 5-19) is a



java interface class and Object class does not require predefining fields for the "Object element".

Referring to claim 11, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed. Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising:

adding at least one data element to the database (Chang et al., Column 11 Line 5-19, i.e. "public void addElement (Object element);");

wherein no predefined field for the data element exists at the time that the data element is added (Note that "Collection.java" of Chang et al. (Column 11 Line 5-19) is a java interface class and Object class does not require predefining fields for the "Object element") ; and

wherein the added data element is organized within the database in a manner which facilitates subsequent location and retrieval of the added data element without the use of a separate index (Chang et al., Column 5 Line 7-11, Column 4 Line 66 through Column 5 Line 3, and Chang Column 6 Line 24-42. The system and method of Chang et al. could search without a separate index (Chang et al., Column 10 Line 26-58 i.e. by using "IDType", ItemId", and "Rank" ). ).

Referring to claim 12, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed. Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising:

adding at least one data element to the database (Chang et al., Column 11 Line 5-19, i.e. "public void addElement (Object element)");

linking the added data element to at least one other data element within the database (Morgenstern, Column 13 Line 63-67, i.e. "Optional linking variables can be utilized to interrelate several data objects and their attributes" and Chang et al. Column 5 Line 33-41, i.e. "The concept mapping enables a user to follow links and join tables as part of a query where the result of a first datastore links data in another" );

wherein no predefined field for the data element exists at the time that the data element is added (Note that "Collection.java" of Chang et al. (Column 11 Line 5-19) is a java interface class and Object class does not require predefining fields for the "Object element"); and

wherein the added data element is organized within the database in a manner which facilitates subsequent location and retrieval of the added data element without the use of a separate index (Chang et al., Column 5 Line 7-11, Column 4 Line 66 through Column 5 Line 3, and Chang Column 6 Line 24-42. The system and method of Chang et al. could search without a separate index (Chang et al., Column 10 Line 26-58 i.e. by using "IDType", ItemId", and "Rank" ).

Referring to claim 13, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed.

Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising:

adding at least one data element to the database (Chang et al., Column 11 Line 5-19, i.e. "public void addElement (Object element)");

automatically linking the added data element of at least one explicitly related data element within the database (Chang et al. Column 5 Line 33-41, i.e. "The concept mapping enables a user to follow links and join tables as part of a query where the result of a first datastore links data in another");

wherein no predefined field for the data element exists at the time that the data element is added (Note that "Collection.java" of Chang et al. (Column 11 Line 5-19) is a java interface class and Object class does not require predefining fields for the "Object element"); and

wherein the added data element is organized within the database in a manner which facilitates subsequent location and retrieval of the added data element without the use of a separate index (Chang et al., Column 5 Line 7-11, Column 4 Line 66 through Column 5 Line 3, and Chang Column 6 Line 24-42. The system and method of Chang et al. could search without a separate index (Chang et al., Column 10 Line 26-58 i.e. by using "IDType", ItemId", and "Rank").

Referring to claim 14, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed.

Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising:

adding at least one data element to the database (Chang et al., Column 11 Line 5-19, i.e. "public void addElement (Object element)");

manually linking the added data element to at least one implicitly related data element within the database (Morgenstern, Column 13 Line 63-67, i.e. “*Optional* linking variables can be utilized to interrelate several data objects and their attributes”);

wherein no predefined field for the data element exists at the time that the data element is added (Note that “Collection.java” of Chang et al. (Column 11 Line 5-19) is a java interface class and Object class does not require predefining fields for the “Object element”); and

wherein the added data element is organized within the database in a manner which facilitates subsequent location and retrieval of the added data element without the use of a separate index (Chang et al., Column 5 Line 7-11, Column 4 Line 66 through Column 5 Line 3, and Chang Column 6 Line 24-42. The system and method of Chang et al. could search without a separate index (Chang et al., Column 10 Line 26-58 i.e. by using “IDType”, ItemId”, and “Rank”).

Referring to claim 15, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed.

Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising:

linking a plurality of data elements within the database to one another (Morgenstern, Column 13 Line 63-67, i.e. “*Optional* linking variables can be utilized to interrelate several data objects and their attributes” and Chang et al. Column 5 Line 33-41, i.e. “The concept mapping enables a user to follow links and join tables as part of a query where the result of a first datastore links data in another”); and

wherein such linking is facilitated by assigning a common number to linked data elements (Chang et al., Column 10 Line 26-58 i.e. by using "IDType", ItemId", and "Rank").

Referring to claim 16, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed. Morgenstern in view of Chang et al. teaches the method as recited in claim 3, wherein the data elements are not erased from the database (Chang et al., Column 11 Line 5-19). Note that, data elements in the method of Chang et al. are not erased.

Referring to claim 17, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed. Morgenstern in view of Chang et al. teaches the method as recited in claim 3, wherein the data elements are not erased from the database until a explicit command to do so is issued (Chang et al., Column 11 Line 5-19, i.e. Only when "public void removeElementAt (Iterator where)" method is called, a particular element will be erased.)

Referring to claim 18, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed. Morgenstern in view of Chang et al. teaches the method as recited in claim 3, wherein the data elements comprise objects (Chang et al., Column 11 Line 5-19, i.e. "public void addElement (**Object** element)").

Referring to claim 19, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed.

Art Unit: 2162

Morgenstern in view of Chang et al. teaches the method as recited in claim 3, wherein the data elements comprise object data of more than one kind (Chang et al., Column 5 Line 7-32).

Referring to claim 20, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed.

Morgenstern in view of Chang et al. teaches the method as recited in claim 3, wherein the data elements comprise object data of more than one kind stored in a common format regardless of the kind of the object data (Morgenstern, Column 5 Line 37-48, i.e. "into a common intermediate representation").

Referring to claim 21, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed.

Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising storing information representative of the kind of object data in the database (Morgenstern, Morgenstern, Column 7 Line 24-31, i.e. "HLDSS data structure specifications" and Column 7 Line 17-24 "The input to the IA consists of two high level data structure specifications (HLDSS) and a high level transformation rule specification (HLTRS)").

Referring to claim 22, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed.

Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising converting object data from a native format into a common format for

storage in the database (Morgenstern, Figure 1 "Information Bridge View Transformations" 1 and Column 5 Line 37-48).

Referring to claim 23, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed. Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising converting object data stored within the database from a common format into a format suitable for use of the object data by an application (Morgenstern, Figure 1 "Information Bridge View Transformations" 1 and Column 5 Line 37-48 and Column 5 Line 37-48, i.e. "then into a specialized target specification").

Referring to claim 24, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed. Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising converting object data stored within the database from a common format into a native format of the object data (Morgenstern, Figure 1 "Information Bridge View Transformations" 1 and Column 5 Line 37-48 and Column 5 Line 37-48, i.e. "then into a specialized target specification").

Referring to claim 25, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed. Morgenstern in view of Chang et al. teaches the method as recited in claim 3, further comprising:

converting object data stored within the database from a common format into a native format of the object data (Morgenstern, Figure 1 "Information Bridge View

Art Unit: 2162

Transformations" 1 and Column 5 Line 37-48 and Column 5 Line 37-48, i.e. "then into a specialized target specification"); and

wherein the object data stored within the database is converted from the common format into the native format via a filter selected from a plurality of filter via a filter identified associated with the object data (Morgenstern, Figure 2 "Interoperability Assistant" and Column 7 Line 16 through Column 8 Line 57, i.e. "IA module" and Column 7 Line 17-24 "The input to the IA consists of two high level data structure specifications (HLDSS) and a high level transformation rule specification (HLTRS)").

Claim 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, and 45, are rejected on the same basis as claim 3, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, and 25 respectively.

Referring to claim 46, the method and system of Morgenstern in view of Chang et al. as discussed above with regard to claim 3 discloses the method as claimed.

Morgenstern in view of Chang et al. teaches an information management system comprising:

an organizer configured to organize a plurality of data elements within the database such that the data is locatable without a separate index (Chang et al., Column 5 Line 7-11, Column 4 Line 66 through Column 5 Line 3, and Chang Column 6 Line 24-42. The system and method of Chang et al. could search without a separate index (Chang et al., Column 10 Line 26-58 i.e. by using "IDType", ItemId", and "Rank" ).);

a locator configured to locate a desired data element in response to a query (Chang et al., Column 5 Line 24-43); and



retrieving the located data element (Chang et al., Column 5 Line 24-43,).

Claim 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, and 65 are rejected on the same basis as claim 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, and 25 respectively.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Myint whose telephone number is (571) 272-5629. The examiner can normally be reached on 8:30AM-5:30PM Monday-Friday.

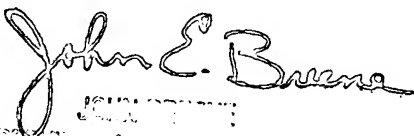
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dennis Myint

AU-2162

BC

  
John E. Breene  
Supervisor  
Art Unit 2162